

Pyott-Boone Electronics

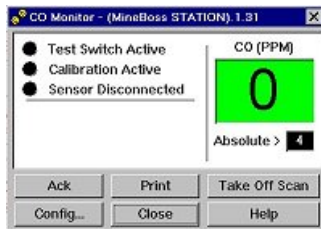
- Serving the Mining Industry for 36 years.
- Monitoring solutions for safety and productivity.
- Communications solutions using standard page telephones and wireless leaky feeder systems.
- Providing Atmospheric Monitoring Systems for the last 22+ years.
- Over 250 monitoring systems sold to mines all over the U.S.
- Over 7000 gas monitors sold to mines all over the U.S.



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AMS Reporting and Action



MineBoss Monitoring and Control System for remote monitoring of mine conditions



MultiGas Unit – Up to four gases can be monitored



Single Smart Remote gas monitor with various gas options



Remote Alarm to alert Mine Personnel



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AMS Components



MineBoss Monitoring and Control System



Power Supply to power system throughout the mine



Single Smart Remote gas unit used in mines all over the U.S.



MultiGas Unit – Up to four gases can be monitored



Fiber Optic Link for additional lightning protection



Remote Alarm to alert personnel



Belt Boss system for prevention, reporting and suppression of fires around the head of the conveyor as well as protection of the belt lines



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Gas Monitors

Model 1700/2100 Series

- Digital calibration
- Keypad programming
- No potentiometers
- Configurable setpoints
- Alarm/Warning Contacts
- Nonmetallic, high impact molded enclosure
- Display LCD
- Passcode protected
- MSHA Approval on Model 2111 Methane, Model 2121 Oxygen and 2101 & 2103 CO Monitor. Other approvals pending
- Available as stand-alone or part of a complete gas monitoring system

The Model 1700 Series Carbon Monoxide Gas Monitors incorporate the latest in technology with surface mount components. Units may be operated with automatic resetting of alarms or require manual reset at the unit or via the Pyott Boone MineBoss Control System (MCS). Standard communications are PBE protocol at 320 baud and 4800 baud. Security features include a pass code which may be set to prevent unauthorized use of the unit. Some models incorporate alarm drivers for activating remote alarm devices. These are open collector type drivers. Also scaling the gas concentration to the 4-20mA current loop is achieved through the keypad so some of our units can be interfaced with equipment capable of receiving a 4-20mA signal.



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Maintenance and proper use of the system is critical

Our AMS System has proven over and over that it works and alerts mine personnel of pending problems.

The best system in the world will not work unless it is properly installed and maintained.

The best system in the world will not be of benefit if it is not monitored and proper procedures followed.

Violations as listed from the Aracoma Fire

Belt Air Violations

- Failed to withdraw miners from affected sections when CO alarm signal was received.
- Failed to notify appropriate personnel that an alarm signal was received.
- Failed to install alarm unit at location where it could be seen or heard by miners on 2 Section.
- Failed to conduct adequate visual examinations of AMS.

Training Violations

- Inadequate training for personnel installing and maintaining AMS.
- Inadequate training for AMS Operators assigned to respond to alert, alarm and malfunction signals.

Conclusion from the investigation - Even with deficiencies in the system, the AMS detected the fire as designed.



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